

MultiSource®



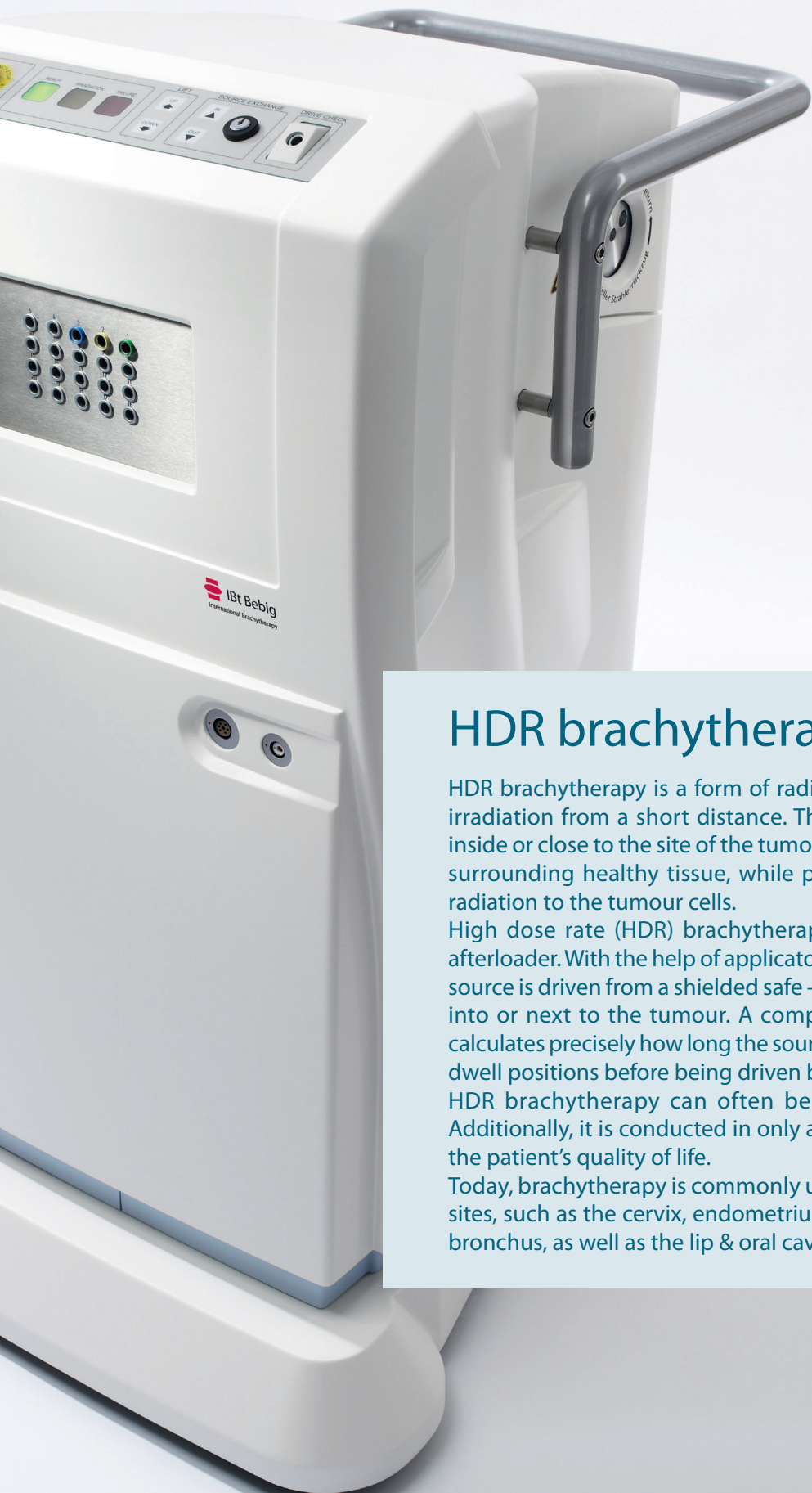
for a higher standard
in HDR brachytherapy



MultiSource® HDR afterloader

- Multiple use: The MultiSource® radiation sources have two things in common – a **small size** and a **favourable dose distribution**.
- Multiple sources: The MultiSource® HDR afterloader can be equipped with an Iridium-192 source or with a Cobalt-60 source, as the customer wishes. The **Cobalt-60 source** is particularly **cost-effective**.
- Multiple applications: The **40 Channel Support** permits the complete range of HDR applications. Even complex implants can be easily performed with MultiSource®.
- Multiple safety: The **Channel Coding** of the MultiSource® HDR afterloader offers even more treatment safety.
- Multiple comfort: IBt Bebig integrates the **In-Vivo Dosimetry System** inside MultiSource®, as the customer requires.
- Multiple quality: **Made in Germany** – The MultiSource® HDR afterloader was designed and developed in Germany. More than 35 years of experience in accordance with German manufacturing standards guarantee the highest quality.
- Multiple reliability: The reliability of the MultiSource® HDR afterloader is outstanding – **100,000 source transfers** are certified and thus guaranteed (IBt Bebig's Co-60 source).
- Multiple planning and documentation: Treatment comfort and user-friendliness thanks to HDRplus™ – The software delivers an optimised treatment plan and makes the process especially **fast, flexible and precise**.





HDR brachytherapy

HDR brachytherapy is a form of radiotherapy in which cancer is treated by irradiation from a short distance. The radioactive source is placed directly inside or close to the site of the tumour. This reduces the risk of damaging the surrounding healthy tissue, while providing a very high dose of localised radiation to the tumour cells.

High dose rate (HDR) brachytherapy is conducted with a so-called HDR afterloader. With the help of applicators and catheters, the very small radiation source is driven from a shielded safe – located inside the afterloader – directly into or next to the tumour. A computerised treatment planning program calculates precisely how long the source has to stay and radiate at the so-called dwell positions before being driven back into the safe.

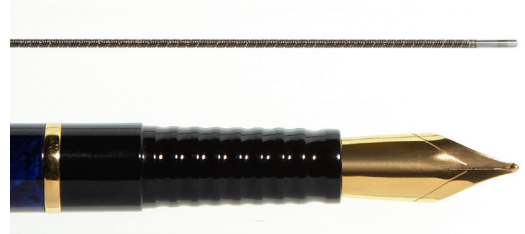
HDR brachytherapy can often be performed on an out-patient basis. Additionally, it is conducted in only a few fractions. This noticeably increases the patient's quality of life.

Today, brachytherapy is commonly used to treat tumours in numerous body sites, such as the cervix, endometrium, prostate, breast, oesophagus, lung & bronchus, as well as the lip & oral cavity.

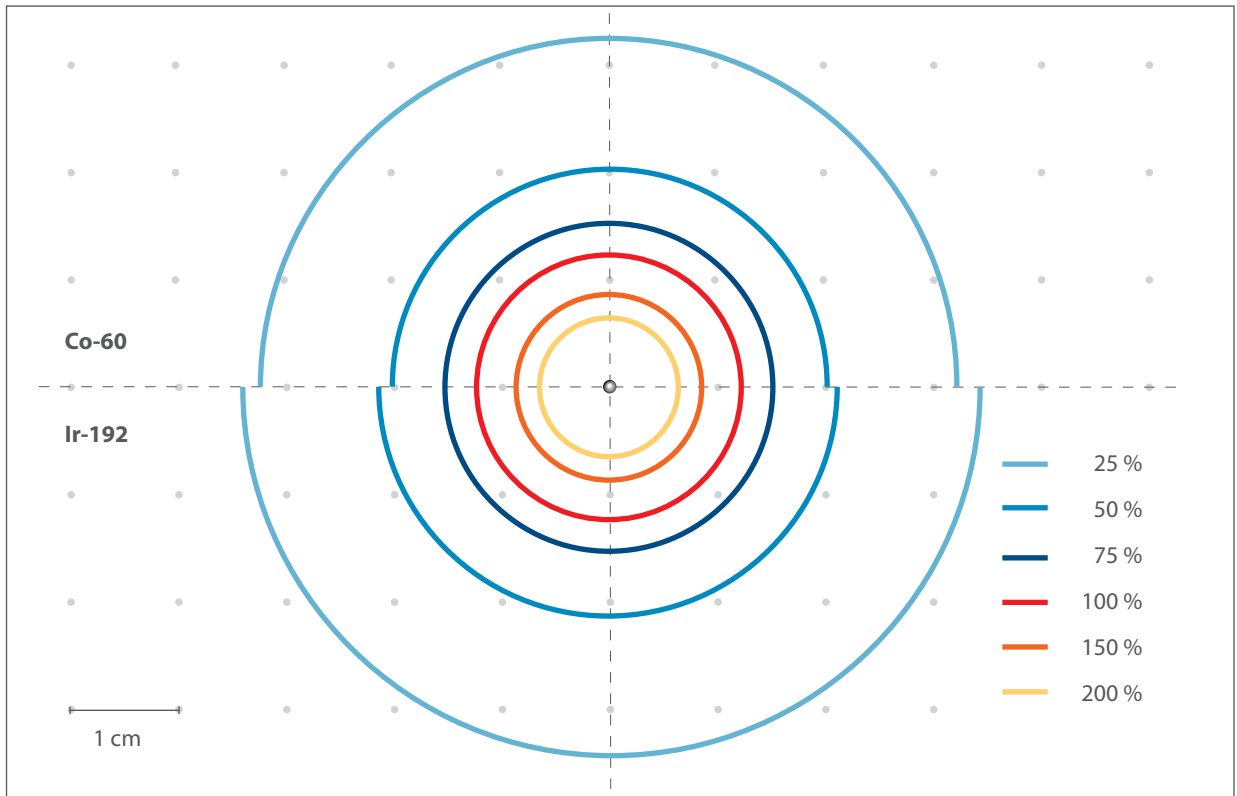
Multiple use

The MultiSource® radiation sources have two things in common – a small size and a favourable dose distribution.

IBt Bebig is worldwide the only brachytherapy specialist providing an HDR afterloading system with a miniaturised Co-60 source (ø 1 mm, Active Source Component length: 3.5 mm).
The small size of the sources permits all established HDR treatments.



Comparison of Co-60 source with a fountain pen

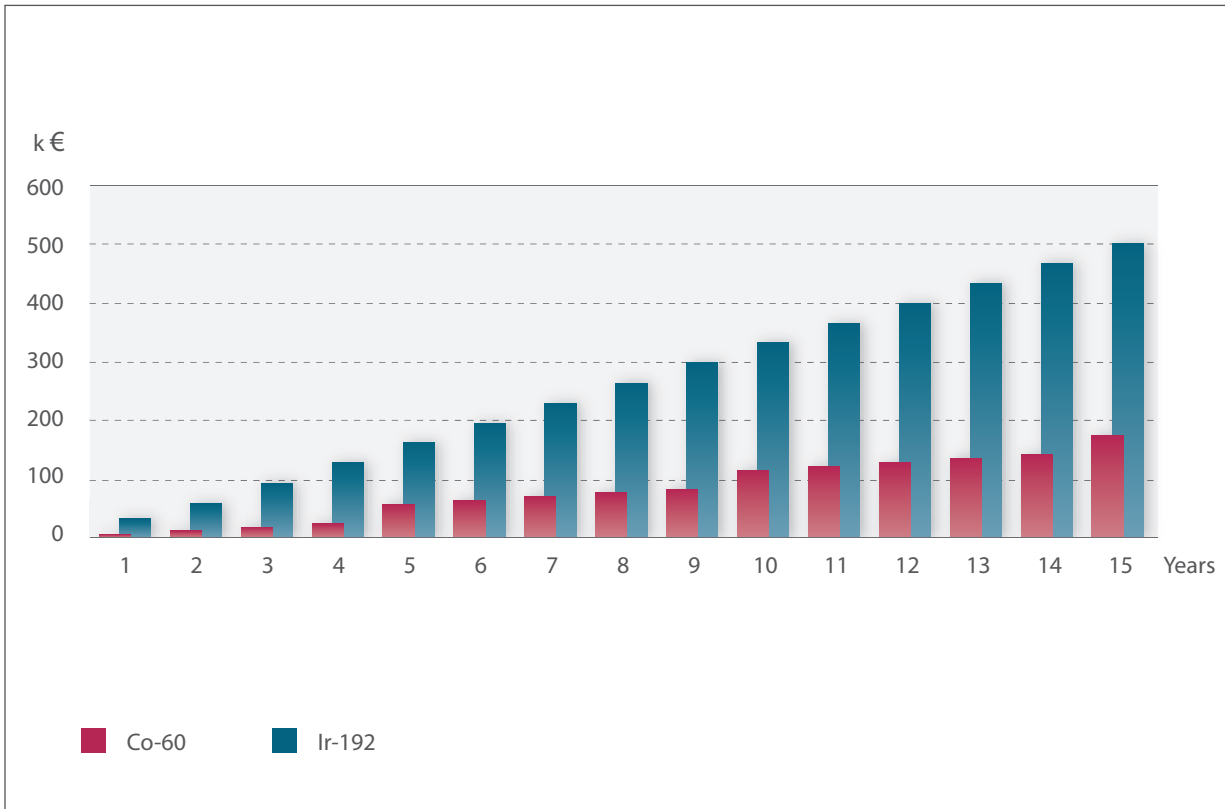


Radiation in tissue: isodose comparison between Co-60 and Ir-192 using a vaginal applicator

- Due to the specific physical characteristics of tissue, the absorption of the emitted radiation is similar for the two nuclides.
- The isodose comparison shows a slightly more favourable dose distribution for Co-60.

Multiple sources

The MultiSource® HDR afterloader can be equipped with an Iridium-192 source or with a Cobalt-60 source, as the customer wishes. The Cobalt-60 source is particularly cost-effective.



Comparison of the accumulated running costs of an HDR afterloader with Co-60 or Ir-192

Underlying parameters:

- Source exchange intervals depending on individual half-life periods: Ir-192, every 3 months; Co-60, every 60 months (5 years)
- Running costs: Average costs per source exchange for Ir-192 and Co-60 and for maintenance
- Prices from IBt Bebig (may differ for other providers)
- IBt Bebig recommends: One standard maintenance for the MultiSource® per year

Characteristics of IBt Bebig's Co-60 source

- Clinically as effective as Ir-192
- Only one source exchange every 5 years
- Significant reduction of running costs compared to Ir-192
- Less time needed for source exchanges and formalities

Multiple applications

The 40 Channel Support permits the complete range of HDR applications. Even complex implants can easily be performed with MultiSource®.

The system allows for the planning of applications with up to 40 channels. For applications that require more than 20 channels, the treatment will be performed in two consecutive steps, executed in a single sequence.

- Cervix
- Endometrium
- Prostate
- Vaginal & rectal
- Breast
- Oesophagus
- Lip & oral cavity
- Lung & bronchus



Multiple safety



The Channel Coding of the MultiSource® HDR afterloader offers even more treatment safety – It is virtually impossible to mix up the colour-coded channels and connections when using the cervix applicator.

Multiple comfort



IBt Bebig integrates the In-Vivo Dosimetry System inside MultiSource®, as the customer requires. This built-in system saves space and makes handling more comfortable. The MultiSource® Software enables the user to specify dose limits. Rectum and bladder doses are monitored, displayed and included in the patient chart.



Multiple planning and documentation

Treatment comfort and user-friendliness thanks to HDRplus™ – The software delivers an optimised treatment plan and makes the process especially fast, flexible and precise.

HDRplus™ is an innovative software program for precise and efficient HDR treatment planning. It provides its users with functions that considerably simplify and speed up their plan preparation. This software supports all HDR applications, including intraluminal, interstitial, intracavitary, intra-operative und surface mould treatments. An optional Prostate Module permits real time online planning using transversal and longitudinal TRUS.

HDRplus™ utilises IBt Bebig´s complete applicator database in order to allow fast and precise positioning of the applicator on the digital image.

HDRplus™ offers Auto Contouring and CT/MR Image Fusion – a benefit of modern imaging technology. An extensive and customisable report function provides user-defined information and streamlined output.

- User-friendly
- Complete applicator database
- Extended dose optimisation features
- Efficient evaluation and viewing
- Extensive and customisable documentation
- Auto Contouring
- CT/MR Image Fusion

MultiSource®

– for a higher standard in HDR brachytherapy

IBt Bebig today

IBt Bebig is a European-based group, active in the Medical Device segment of the Health Care sector.

IBt Bebig's core business is the treatment of cancer by using brachytherapy, a special form of radiotherapy. IBt Bebig is a leader in brachytherapy in Europe. The company headquarters are in Belgium, with a production facility in Germany and subsidiaries throughout Europe and in India. In addition, IBt Bebig has a worldwide network of distributors and agents, to support the international marketing of its product line.

The products and equipment provided by the company are intended for use by oncologists, radiologists, urologists and medical physicists.

IBt Bebig employs more than 150 people. The company has been listed on the Euronext stock exchange since April 1997 (Reuters: IBTH.BR – Bloomberg: IBTB BB).

IBt Bebig

Belgium

Zone Industrielle C
7180 Seneffe
Phone +32 (0) 64 52 08 20
Fax +32 (0) 64 52 08 21

France

67 Rue de Dunkerque
75009 Paris
Phone +33 1 55 28 00 30
Fax +33 1 40 21 06 09

Germany

Robert-Rössle-Strasse 10
13125 Berlin
Phone +49 (0) 30 94 10 84-130
Fax +49 (0) 30 94 10 84-112

Italy

Via Fiuggi 2
20159 Milano (MI)
Phone +39 02 69900435
Fax +39 02 69010218

Spain

Av. Fuente Nueva 4 Bloque 1-1ª
28700 San Sebastián de los
Reyes (Madrid)
Phone +34 91 652 6248
Fax +34 91 653 5352

UK

Imperial House, 4th Floor
15 Kingsway - London WC2B 6UN
Phone +44 1446 773 433
Mobile +44 7900 141 017

India

KMBF Building, 1st. Floor -
30 Doraisamy Road
T-Nagar, Chennai 600 017
Phone + 91 44 42 12 56 00
Fax + 91 44 42 12 56 01

www.ibt-bebig.eu
info@ibt-bebig.eu

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